C3 End

a dummy electrode formed oppositely to the drive lead electrode in the position in which the first and second transparent substrates are covered by the sealing member;

wherein the dummy electrode has a plurality of slits to divide the dummy electrode into a plurality of parts electrically insulated from each other.

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26. (Amended) A liquid crystal apparatus comprising:

first and second transparent substrates provided opposite to each other via a liquid crystal;

a plurality of driving electrodes for driving the liquid crystal formed on at least one of opposite inner surfaces of said first and second transparent substrates to apply a voltage to said liquid crystal;

a dummy electrode formed opposite to one of said driving electrodes on the other of said opposite inner surfaces at a position covered by a sealing member, said dummy electrode applying no voltage to said liquid crystal;

wherein said one of said driving electrodes and said dummy electrode are opposed to each other through an insulating film so as to electrically insulate said one of said driving electrodes from said dummy electrode, and said dummy electrode comprises a plurality of island portions electrically insulated from each other and at least two of said plurality of island portions are provided oppositely to said one of said driving electrodes.

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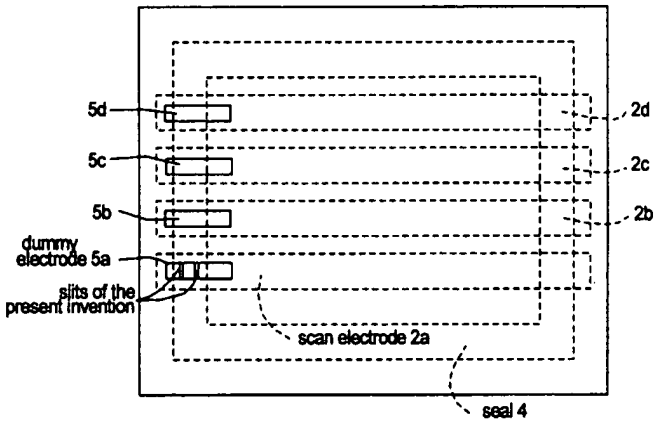
REMARKS

Claims 3-28 are pending in the application. In the Office Action, the Examiner allowed claims 7-11 and 14-17, but rejected claims 23, 3, 4, 22, 26, and 28 under 35 U.S.C. § 102(a) as being anticipated by Sato et al. (previously cited); rejected claims 5,

6, and 26-28 under 35 U.S:C. § 102(e) as being anticipated by Shimada et al. (also previously cited); and rejected claims 12, 13, 18, and 19 under 35 U.S.C. § 103(a) as being unpatentable over Sato et al. in view of Shimada et al. Applicants gratefully acknowledge the allowance of claims 7-11 and 14-17. However, Applicants respectfully traverse the rejections of the remaining claims, at least to the extent those rejections are deemed applicable to independent claims 5, 12, 23, and 26, as amended herein.

Shown below is a modified replica of Fig. 1 of. the Sato et al. reference in which dummy electrodes 5a, 5b, 5c and 5d overlie scan electrodes 2a, 2b, 2c, and 2d, respectively. In rejecting claims 23, 3, 4, 22, 26, and 28 as being anticipated by Sato et al., the Examiner appears to consider dummy electrodes 5a, 5b, 5c and 5d as the same as the dummy electrode 40D, for example, of the present invention and concludes that the separations between dummy electrodes 5a and 5b, 5b and 5c, and 5c and 5d correspond to the plurality of slits of the present invention. This interpretation by the Examiner is not correct.



In an embodiment of the present invention, as shown in Fig. 1 of the present application, dummy electrode 40D is formed along drive-lead electrode 40S. This

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structure of the dummy electrode 40D according to the present invention corresponds to any one of dummy electrodes 5a, 5b, 5c or 5d shown in the above figure representing Fig. 1 of the Sato et al. reference. Slits 41, 41 ... formed on dummy electrode 40D of the present invention correspond to the labeled "slits of the present invention" in the figure shown above.

As disclosed by Sato et al., dummy electrode 5a in the above figure registers with a respective one of the driving electrodes, i.e., 2a, and does not have any slits formed therein. For that reason, the structure defined by claim 23 of the present application differs from the structure shown in Fig. 1 of Sato et al.

As stated in "claim 2" on page 1 of the English translation of Sato et al. the dummy electrode 5 and the corresponding driving electrode 2 are short-circuited to each other. In contrast, the present invention prevents a dummy electrode from being short-circuited to a driving electrode by forming an insulating film between the dummy electrode and the driving electrode. Therefore, the present invention is additionally different from Sato et al.

Accordingly, Applicants submit that the structure including the dummy electrode and the slits of the present invention is completely different from that of Sato et al., and therefore, the present invention, as now defined by claims 23, 3, 4, 22, 26, and 28 is novel and patentable over Sato et al. Accordingly the rejection of those claims under 35 U.S.C. § 102(a) as being anticipated by Sato et al. should be withdrawn.

Regarding the rejection of claims 5, 6, and 26-28 as anticipated by Shimada et al. under 35 U.S.C. § 102(e), Shimada et al. disclose or teach covering a part of an extending portion of a gate wiring with a metal film as shown in Fig. 12. The structure

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shown in Fig. 12 is different from that shown in Fig. 15 with respect to the areas of gate wiring coated by the metal film. Therefore, it is not correct to conclude that Figs. 12 and 15 in Shimada et al. disclose the same technical idea. The metal film shown in Fig. 12 of Shimada et al. is coated on a different region or area than the light cutting film of the present invention.

Shimada et al. do not disclose a frame-like insulating slit formed along a frame-like seal. In order to solve the problems addressed by the present invention, the separation slits should be provided in a peripheral area outside of the image area so as to surround that image area, as stated in amended claim 5. This structure prevents deterioration of image quality due to a short circuit in the peripheral area of a liquid crystal device.

Therefore, Applicants submit that amended claim 5 is not anticipated by and should not be rejected based on Shimada et al.

Claim 26 recites the dummy electrode as formed opposite to one of said driving electrodes on the other of said opposite inner surfaces at a position covered by a sealing member, and comprising a plurality of island portions electrically insulated from each other. In contrast, Shimada et al. do not disclose or suggest a plurality of island-formed dummy electrodes at a position covered by a sealing member. Thus, claims 26-28 are not anticipated by Shimada et al.

The rejection of claims 12, 13, 18, and 19 under 35 U.S.C. § 103(a) as being unpatentable over Sato et al. in view of Shimada et al. is respectfully traversed as involving an improper construction of the disclosures of these references as pointed out above.

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Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

If any extension of time under 37 C.F.R. § 1.136 is required for entry of this response, and not accounted for by an attached request and fee payment by check, please grant such extension and charge the required fee to our deposit account 06-0916.

Respectfully submitted,

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Dated: February 20, 2003

By: _____
Robert F. Ziems
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Appendix to Amendment
U.S. Application No. 09/380,781
Filed: September 9, 1999

Amended Claims 5, 12, 23 and 26:

5. (Twice Amended) A liquid crystal apparatus with leak current preventing function, comprising:

first and second transparent substrates opposite to each other;

first and second transparent imaging electrodes, each formed on an opposite inner surface of the first and second transparent substrates;

a sealing member between the first and second transparent substrates for providing a liquid crystal injecting area, for forming a gap, and for sealing the liquid crystal in the gap; and

a conductive light-cutting film on at least one of the first and second transparent substrates for cutting off unnecessary light at an image area and peripheral portion thereof;

wherein separation slits for dividing the light-cutting film into a plurality of portions are provided in a peripheral area outside of the image area, so as to surround said image area, and in which the light-cutting film is superposed with the sealing member.

12. (Twice Amended) A liquid crystal apparatus with leak current preventing function, comprising:

first and second transparent substrates provided opposite to each other;

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first and second imaging electrodes, each formed on an opposite inner surface of the first and second transparent substrates;

a sealing member between the first and second transparent substrates for providing a liquid crystal injecting area, for forming a gap, and for sealing the liquid crystal in the gap; and

a plurality of conductive particles included dispersedly within the sealing member;

a drive lead electrode [for the first and second imaging electrodes and] formed at [the] a position covered by the sealing member;

a dummy electrode formed opposite to at least a part of the drive lead electrode, at the position in which the first and second transparent substrates are covered by the sealing member; and

a conductive light-cutting film on at least one of the first and second transparent substrates for cutting off unnecessary light at an image area and peripheral portion thereof;

wherein the dummy electrode is divided by a plurality of slits, and further, a separation slit for dividing the light-cutting film into a plurality of portions is provided in a peripheral area outside of the image area and in which the light-cutting film is superposed with the sealing member.

23. (Amended) A liquid crystal apparatus with leak current preventing function, comprising:

first and second transparent substrates provided opposite to each other;

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first and second transparent imaging electrodes, each formed on an opposite inner surface of the first and second transparent substrates;

a sealing member provided between the first and second transparent substrates for providing a liquid crystal injecting area and forming a gap in order to seal the liquid crystal therebetween;

a plurality of conductive particles included dispersedly within the sealing member;

a drive lead electrode formed on position covered by the sealing member between the first and second transparent substrates; and

a dummy electrode formed oppositely to the drive lead electrode in the position in which the first and second transparent substrates are covered by the sealing member;

wherein the dummy electrode [is divided by] has a plurality of slits to divide the dummy electrode into a plurality of parts electrically insulated from each other.

26. (Amended) A liquid crystal apparatus comprising:

first and second transparent substrates provided opposite to each other via a liquid crystal;

a plurality of driving electrodes for driving the liquid crystal formed on at least one of opposite inner surfaces of said first and second transparent substrates to apply a voltage to said liquid crystal;

a dummy electrode formed opposite to one of said driving electrodes on the other of said opposite inner surfaces at a position covered by a

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sealing member, said dummy electrode applying no voltage to said liquid crystal;

wherein said one of said driving electrodes and said dummy electrode are opposed to each other through an insulating film so as to electrically insulate said one of said driving electrodes from said dummy electrode, and said dummy electrode comprises a plurality of island portions electrically insulated from each other and at least two of said plurality of island portions are provided oppositely to said one of said [plurality of] driving electrodes [for driving the electric crystal].

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